

ABSTRACT OF THE DISCLOSURE

In an error and sync detection circuit, 7-bit byte data is rearranged by a data rearrangement block into 8-bit byte data where 1 byte is comprised of 8 bits. Thereafter, the 8-bit byte data is consistently used throughout the process, and each of such byte data is stored in a data storage block, which is a RAM. In a parity check block, a sync detection operation and a parity check operation are performed on the byte data from the data rearrangement block and the byte data from the data storage block, which has been delayed by 1496 clocks. Thus, the byte-to-byte conversion process eliminates the need for a parallel-to-serial conversion circuit and a serial-to-parallel conversion circuit. Use of a RAM for storing the byte data eliminates the need for a 1496-stage delay element.